

Remarks/Arguments

This amendment is in response to the Office Action dated November 22, 2006.

Claims 1, 4-8 remain in this application. Claim 2 has been canceled. New claims 9- 23 have been added.

Claim 1 has been provisionally rejected based on obviousness-type double patenting over copending application No. 10/110,325. In the event that the claims are allowed in each case, Applicants will file an appropriate terminal disclaimer if needed upon allowance of this claim 1.

Claims 1, and 4-7 have been rejected under 35 USC 103(a) in view of GB 2,302,042 A in view of Rogemont et al (US 4,701,234). Applicants disagree.

The present invention requires a thermoplastic composition be molded to the periphery of at least the filtrate screen layer and around a port. Those layers are arranged with a plurality of membrane layers in a vertical stack which is then heated to selectively melt the thermoplastic and form the desired fluid flow paths.

The combination of references fails to teach or suggest each and every element of the present invention and as such no prima facie case of obviousness has been established. In particular, the combination of references fail to teach or suggest the use of a thermoplastic that is formed on the periphery of the screen and a port to form the desired fluid flow paths through the structure.

The Office action assumes the British reference uses melting to attach its copolymer layer between the adjacent layers by citing Page 2, lines 15-22. Yet that passage fails to support that assertion. All it states is that the copolymer have a softening or melting point below that of the

adjacent elements to which it is fluid tightly sealed. However, nowhere in the reference is the copolymer ever taught as being melted which is a required element of the present claims. In fact there is no teaching of how the copolymer is held between the adjacent layers except at Page 7, line 35- Page 8, line 5 where it states that the copolymer has excellent adhesion and compression characteristics. One of ordinary skill in the art would not have assumed that the copolymer is melted from the teachings or suggestions of the British reference but rather that it is the adhesion and compressibility that are used.

Additionally, the British reference clearly teaches that the EVA copolymer is placed "between" the layers not through the layers. See GB 2302042, Abstract, line 3, "positioned between the elements"; Page 1 third paragraph "between the filtration medium and support material"; Page 2, line 9, "positioned between the structural elements" and line 35 "between"; Page 4, lines 27-28 "positioned between the filtration media"; Page 5, lines 1-2 "between the filtration media"; Page 6, lines 16-17 "between the support materials"; line 34 "positioned between the membrane"; Page 7 lines 12-13 " positioned between the membrane and the support material"; and claim1 line 5 "positioned between said structural elements".

The only statement it has to embedding the copolymer layer is at pages Page 6, line 27 and page 7, lines 17-19 in which an additional diffusion layer between the membrane and support layer may preferably be "partially embedded in the copolymer **positioned between the membrane and the support material.**" (Applicants emphasis). Contrary to the unsupported assertion in the Office action, the copolymer layer of the reference does not "penetrate several layers of the membranes and screens". At best, it is partially embedded into a diffusion layer that is between the filter and support layers as is clearly stated in the reference.

Rogemont doesn't overcome the issue of the British reference. It teaches compressing raw uncured rubber into a material and then clamping the individual layers together.

One of ordinary skill in the art in view of the cited combinations of references would not have been taught or suggested the process of the present invention. Instead one would have considered using the rubber of Rogemont or the copolymer of the British reference to make a boundary edge on a screen and then clamping it together.

That is quite unlike the present invention which forms a thermoplastic layer in an edge design and around a port to separate fluid flow as desired and then heats the thermoplastic to melt it and bond each spacer to adjacent membranes through out the structure to form an integrally sealed structure.

Claims 1 and 4-7 have been rejected under 35 USC 103(a) over Rogemont (US 4,701,234) in view of the GB reference. Applicants disagree.

The office action states that Rogemont fails to teach or suggest a thermoplastic elastomer but asserts that the GB reference does and that it would have been obvious to substitute the EVA copolymer of the GB reference for the raw, cured in place silicone of Rogemont.

Applicants note that Rogemont specifically teaches that its device is clamped together to hold the layers in a sealing arrangement.

Applicants note the British reference fails to teach or suggest the use of a thermoplastic elastomer as it is well known in the art. Instead it only teaches the use of an EVA-copolymer, which as anyone skilled in the art would understand is not a thermoplastic elastomer.

Additionally, the Office Action fails to consider the clear teaching that the EVA layer of the GB reference is used between layers of the device and it uses its good adhesive properties to bond